

## Claims

1. Disc brake (10), having two brake shoes (12, 14), which for generating a clamping force (A, A') are pressable against both sides of a brake disc (16), and  
5 an actuator device (26) for actuating at least one of the brake shoes (12, 14), characterized in that at least one force transducer (42) is disposed in a first force transmission path (C) between the actuator device (26) and at least one of the brake shoes (12, 14).
- 10 2. Disc brake according to claim 1, characterized in that a force transmission device (50) is disposed between the force transducer (42) and the at least one brake shoe (12, 14).
3. Disc brake according to claim 2,  
15 characterized in that the force transmission device (50) interacts in a two-dimensional manner with the force transducer (42).
4. Disc brake according to one of claims 1 to 3,  
20 characterized in that the force transducer (42) is designed as a force-to-resistance transducer.
5. Disc brake according to claim 4,  
characterized in that the force transducer (42) comprises a force-to-pressure  
transducer (60, 62, 64) and a pressure-to-resistance transducer (66) disposed  
25 functionally downstream of the force-to-pressure transducer (60, 62, 64).
6. Disc brake according to claim 5,  
characterized in that the pressure-to-resistance transducer (66) is manufactured  
by single-chip technology.
- 30 7. Disc brake according to one of claims 2 to 6,  
characterized in that the force transducer (42) has a chamber (64), which is  
filled with a fluid and sealed by a diaphragm (62), which interacts with the force

transmission device (50).

8. Disc brake according to one of claims 1 to 7,  
characterized in that between the actuator device (26) and at least one of the  
5 brake shoes (12, 14) a second force transmission path (D) is provided, which  
bypasses the force transducer (42).
9. Disc brake according to claim 8,  
characterized in that the second force transmission path (D) may be activated  
10 when a force threshold value is exceeded.
10. Disc brake according to claim 9,  
characterized in that at least the forces exceeding the force threshold value are  
transmissible via the second force transmission path (D).  
15
11. Disc brake according to one of claims 8 to 10,  
characterized in that the force transmission device (50) is disposed at least in  
sections both in the first force transmission path (C) and in the second force  
transmission path (D).  
20
12. Disc brake according to one of claims 8 to 11,  
characterized in that the force transmission device (50) has control means  
(56) for activating the second force transmission path (D).
- 25 13. Disc brake according to claim 12,  
characterized in that the control means for activating the second force transmis-  
sion path (D) are formed by a first stop (56) of the force transmission device  
(50), which stop interacts with a second stop (57), which is coupled in force  
transmission direction rigidly to a component (40) of the actuator device (26).  
30
14. Disc brake according to one of claims 2 to 13,  
characterized in that the force transmission device (50) comprises a piston

(52) movable relative to the force transducer (42).

15. Disc brake according to one of claims 2 to 14,  
characterized in that the force transmission device (50) comprises an elastic  
5 reaction element (56) movable relative to the force transducer (42).
16. Disc brake according to claim 15,  
characterized in that the reaction element (56) is disposed in the first force  
transmission path (C) between the piston (52) and the force transducer (42).  
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17. Disc brake according to one of claims 1 to 16,  
characterized in that the actuator device (26) has a receiver (40) for the force  
transducer (42).
- 15 18. Disc brake according to claim 17,  
characterized in that the receiver (40) for the force transducer (42) has a guide  
(48) for the force transmission device (50).
19. Disc brake according to claim 18,  
20 characterized in that the guide (48) for the force transmission device (50) has at  
least one recess (58) for receiving in sections the reaction element (56) in the  
event of its elastic deformation.
20. Disc brake according to one of claims 17 to 19,  
25 characterized in that the actuator device (26) comprises an at least translation-  
ally movable actuator element (30), which is coupled in a force transmission di-  
rection rigidly to the receiver (40).
21. Disc brake according to claim 20,  
30 characterized in that the translationally movable actuator element (30) has a  
hollow space, into which the receiver (40) extends at least in sections.

22. Disc brake according to one of claims 1 to 21,  
characterized in that the actuator device (26) comprises a nut/spindle arrangement (28, 30).
- 5 23. Disc brake according to claim 22,  
characterized in that the translationally movable actuator element (30) is a component of the nut/spindle arrangement (28, 30) or is coupled rigidly to a component of the nut/spindle arrangement (28, 30).
- 10 24. Disc brake according to one of claims 1 to 23,  
characterized in that the actuator device (26) converts a driving motion of a motor into an actuating motion for actuating at least one of the brake shoes (12, 14).
- 15 25. Disc brake according to one of claims 1 to 24,  
characterized in that the actuator device is hydraulically actuable.